

In 2020 we plan to develop a formulation and initial implementation of optimal power flow-based emergency control with the system model uncertainty. We also plan to design a reduced (machine-learning) based model to describe the non-linear load/generator behavior based on the PMU data and determine feasible operating conditions. We suggest to merge models from Modelica into the dynamic module in GridDyn and demonstrate dynamic and steady-state functionality with control modules on appropriate test cases.